Chapter 7. Visual

Section 1. General

7-1-1. CLASS A AIRSPACE RESTRICTIONS

Do not apply visual separation or issue VFR or "VFR-on-top" clearances in Class A airspace.

7-1-2. VFR CONDITIONS

a. You may clear aircraft to maintain "VFR conditions" if one of the following conditions exists:

1. The pilot of an aircraft on an IFR flight plan requests a VFR climb/descent.

2. *TERMINAL.* The clearance will result in noise abatement benefits where part of the IFR departure route does not conform to an FAA-approved noise abatement route or altitude.

PHRASEOLOGY-
MAINTAIN VFR CONDITIONS.

MAINTAIN VFR CONDITIONS UNTIL (time or fix).

MAINTAIN VFR CONDITIONS ABOVE/BELOW (altitude).

CLIMB/DESCEND VFR,

and if required,

BETWEEN (altitude) AND (altitude)

or

ABOVE/BELOW (altitude).

b. When, in your judgment, there is reason to believe that flight in VFR conditions may become impractical, issue an alternative clearance which will ensure separation from all other aircraft for which you have separation responsibility.

PHRASEOLOGY-
IF UNABLE, (alternative procedure), AND ADVISE.

7-1-3. APPROACH CONTROL SERVICE FOR VFR ARRIVING AIRCRAFT

Issue the following where procedures have been established for arriving VFR aircraft to contact approach control for landing information:

a. Wind, runway, and altimeter setting at the airport of intended landing. This information may be omitted if contained in the ATIS broadcast and the pilot states the appropriate ATIS code or if the pilot uses the phrase, "have numbers."

NOTE-
Pilot use of "have numbers" does not indicate receipt of the ATIS broadcast.

b. Traffic information on a workload permitting basis.

c. Time or place at which the aircraft is to contact the tower on local control frequency for further landing information.

d. An aircraft may be instructed to contact approach control for landing and traffic information upon initial contact with the tower.

REFERENCE-
FAAO 7110.65, Application, Para 7-6-1.
FAAO 7110.65, Service Availability, Para 7-6-2.

7-1-4. VISUAL HOLDING OF VFR AIRCRAFT

TERMINAL

When it becomes necessary to hold VFR aircraft at visual holding fixes, take the following actions:

a. Clear aircraft to hold at selected, prominent geographical fixes which can be easily recognized from the air, preferably those depicted on sectional charts.

NOTE-
At some locations, VFR checkpoints are depicted on Sectional Aeronautical and Terminal Area Charts. In selecting geographical fixes, depicted VFR checkpoints are preferred unless the pilot exhibits a familiarity with the local area.

REFERENCE-
FAAO 7110.65, Visual Holding Points, Para 4-6-5.

b. Issue traffic information to aircraft cleared to hold at the same fix.

PHRASEOLOGY-
HOLD AT (location) UNTIL (time or other condition),

TRAFFIC (description) HOLDING AT (fix, altitude if known),

or

PROCEEDING TO (fix) FROM (direction or fix).

REFERENCE-
FAAO 7110.65, Holding, Para 7-6-5.

Section 2. Visual Separation

7-2-1. VISUAL SEPARATION

Aircraft may be separated by visual means, as provided in this paragraph, when other approved separation is assured before and after the application of visual separation. To ensure that other separation will exist, consider aircraft performance, wake turbulence, closure rate, routes of flight, and known weather conditions. Reported weather conditions must allow the aircraft to remain within sight until other separation exists. Do not apply visual separation between successive departures when departure routes and/or aircraft performance preclude maintaining separation.

REFERENCE-
FAAO 7110.65, Wake Turbulence Cautionary Advisories, Para 2-1-20.
FAAO 7110.65, Traffic Advisories, Para 2-1-21.
FAAO 7110.65, Use of Tower Radar Displays, Para 3-1-9.
FAAO 7110.65, Approach Separation Responsibility, Para 5-9-5.
FAAO 7110.65, Visual Approach, Para 7-4-1.
FAAO 7110.65, Vectors for Visual Approach, Para 7-4-2.
FAAO 7110.65, Approaches to Multiple Runways, Para 7-4-4.
P/CG Term- Visual Approach.
P/CG Term- Visual Separation.

a. *TERMINAL.* Visual separation may be applied between aircraft under the control of the same facility within the terminal area up to but not including FL 180, provided:

1. Communication is maintained with at least one of the aircraft involved or the capability to communicate immediately as prescribed in para 3-9-3, Departure Control Instructions, subpara a2 is available, and:

2. The aircraft are visually observed by the tower and visual separation is maintained between the aircraft by the tower. The tower shall not provide visual separation between aircraft when wake turbulence separation is required or when the lead aircraft is a B757.

3. A pilot sees another aircraft and is instructed to maintain visual separation from the aircraft as follows:

(a) Tell the pilot about the other aircraft including position, direction and, unless it is obvious, the other aircraft's intention.

(b) Obtain acknowledgment from the pilot that the other aircraft is in sight.

(c) Instruct the pilot to maintain visual separation from that aircraft.

(d) Advise the pilot if the radar targets appear likely to converge.

NOTE-
Issue this advisory in conjunction with the instruction to maintain visual separation, or thereafter if the controller subsequently becomes aware that the targets are merging.

(e) If the aircraft are on converging courses, inform the other aircraft of the traffic and that visual separation is being applied.

PHRASEOLOGY-
TRAFFIC, (clock position and distance), (direction)-BOUND, (type of aircraft), (intentions and other relevant information).

If applicable,

ON CONVERGING COURSE.

DO YOU HAVE IT IN SIGHT?

If the answer is in the affirmative,

MAINTAIN VISUAL SEPARATION FROM THAT TRAFFIC.

If aircraft are on converging courses, advise the other aircraft:

TRAFFIC, (clock position and distance), (direction)-BOUND, (type of aircraft), HAS YOU IN SIGHT AND WILL MAINTAIN VISUAL SEPARATION.

b. *EN ROUTE.* You may use visual separation in conjunction with visual approach procedures. Visual separation may also be used up to but not including FL 180 when the following conditions are met:

1. Direct communication is maintained with one of the aircraft involved and there is an ability to communicate with the other.

2. A pilot sees another aircraft and is instructed to maintain visual separation from it as follows:

(a) Tell the pilot about the other aircraft including position, direction and unless it is obvious, the other aircraft's intentions.

(b) Obtain acknowledgment from the pilot that the other aircraft is in sight.

(c) Instruct the pilot to maintain visual separation from that aircraft.

(d) Advise the pilot if the radar targets appear likely to converge.

(e) If the aircraft are on converging courses, inform the other aircraft of the traffic and that visual separation is being applied.

(f) Advise the pilots if either aircraft is a heavy.

(g) Traffic advisories and wake turbulence cautionary advisories shall be issued in accordance with para 2-1-20, Wake Turbulence Cautionary Advisories, and para 2-1-21, Traffic Advisories.

REFERENCE-
FAAO 7110.65, Visual Approach, Para 7-4-1.
FAAO 7110.65, Vectors for Visual Approach, Para 7-4-2.

c. Nonapproach control towers may be authorized to provide visual separation between aircraft within surface areas or designated areas provided other separation is assured before and after the application of visual separation. This may be applied by the nonapproach control tower providing the separation or by a pilot visually observing another aircraft and being instructed to maintain visual separation with that aircraft.

PHRASEOLOGY-
VISUAL SEPARATION APPROVED BETWEEN (identification) AND (identification),

and for departing aircraft,

(departing/succeeding aircraft) RELEASED YOUR DISCRETION.

NOTE-
Separation of IFR aircraft before and after application of visual separation is an IFR control function (Approach/Departure/En Route). A nonapproach control tower by accepting authorization for visual separation becomes responsible for ensuring that separation. Separation requirements also apply to VFR aircraft when IFR, Class B, Class C or TRSA separation is prescribed.

REFERENCE-
FAAO 7110.65, Practice Approaches, Para 4-8-11.
FAAO 7110.65, Application, Para 5-6-1.
FAAO 7110.65, Vectors for Visual Approach, Para 7-4-2.
FAAO 7110.65, Application, Para 7-6-1.
FAAO 7110.65, Application, Para 7-7-1.
FAAO 7110.65, Issuance of EFC, Para 7-7-2.
FAAO 7110.65, Separation, Para 7-7-3.
FAAO 7110.65, Helicopter Traffic, Para 7-7-4.
FAAO 7110.65, Altitude Assignments, Para 7-7-5.
FAAO 7110.65, Approach Interval, Para 7-7-6.
FAAO 7110.65, TRSA Departure Information, Para 7-7-7.
FAAO 7110.65, Class C Services, Para 7-8-2.
FAAO 7110.65, Separation, Para 7-8-3.
FAAO 7110.65, Establishing Two-Way Communications, Para 7-8-4.
FAAO 7110.65, Altitude Assignments, Para 7-8-5.
FAAO 7110.65, Exceptions, Para 7-8-6.
FAAO 7110.65, Application, Para 7-9-1.
FAAO 7110.65, Methods, Para 7-9-3.
FAAO 7110.65, Separation, Para 7-9-4.
FAAO 7110.65, Helicopter Traffic, Para 7-9-6.
FAAO 7110.65, Altitude Assignments, Para 7-9-7.

Section 3. VFR-on-Top

7-3-1. VFR-ON-TOP

a. You may clear an aircraft to maintain "VFR-on-top" if the pilot of an aircraft on an IFR flight plan requests the clearance.

PHRASEOLOGY-
MAINTAIN VFR-ON-TOP.

NOTE-
1. *When an aircraft has been cleared to maintain "VFR-on-top," the pilot is responsible to fly at an appropriate VFR altitude, comply with VFR visibility and distance from cloud criteria, and to be vigilant so as to see and avoid other aircraft.*

2. *Although standard IFR separation is not applied, controllers shall continue to provide traffic advisories and safety alerts, and apply merging target procedures to aircraft operating VFR-on-top.*

b. You may clear an aircraft to climb through clouds, smoke, haze, or other meteorological formations and then to maintain "VFR-on-top" if the following conditions are met:

1. The pilot requests the clearance.

2. You inform the pilot of the reported height of the tops of the meteorological formation, or

3. You inform the pilot that no top report is available.

4. When necessary, you ensure separation from all other traffic for which you have separation responsibility by issuing an alternative clearance.

5. When an aircraft is climbing to and reports reaching "VFR-on-top," reclear the aircraft to maintain "VFR-on-top."

PHRASEOLOGY-
CLIMB TO AND REPORT REACHING VFR-ON-TOP,

and

TOPS REPORTED (altitude),

or

NO TOPS REPORTS.

IF NOT ON TOP AT (altitude), MAINTAIN (altitude), AND ADVISE.

MAINTAIN VFR-ON-TOP.

c. Do not clear an aircraft to maintain "VFR-on-top" between sunset and sunrise to separate holding aircraft from each other or from en route aircraft unless restrictions are applied to ensure the appropriate IFR vertical separation.

PHRASEOLOGY-
MAINTAIN VFR-ON-TOP AT OR ABOVE/BELOW/BETWEEN (altitudes).

EXAMPLE-
"Maintain VFR-on-top at or above one three thousand five hundred."

"Maintain VFR-on-top at or below one two thousand five hundred."

"Maintain VFR-on-top at or between six thousand and one zero thousand."

d. When, in your judgment, there is reason to believe that flight in VFR conditions may become impractical, issue an alternative clearance which will ensure separation from all other aircraft for which you have separation responsibility.

PHRASEOLOGY-
IF UNABLE, (alternative procedure), AND ADVISE.

REFERENCE-
FAAO 7110.65, VFR-on-Top, Para 9-4-3.

7-3-2. ALTITUDE FOR DIRECTION OF FLIGHT

Inform an aircraft maintaining "VFR-on-top" when a report indicates the pilot is not complying with 14 CFR Section 91.159(a).

NOTE-
As required by 14 CFR Section 91.159(a), the appropriate VFR altitudes for aircraft (not in a holding pattern of 2 minutes or less, or turning) operating more than 3,000 feet above the surface to and including 18,000 feet MSL:

Magnetic courses 0-179- odd cardinal altitudes plus 500 feet; e.g., 3,500, 5,500.

Magnetic courses 180-359- even cardinal altitudes plus 500 feet; e.g., 4,500, 8,500.

PHRASEOLOGY-
VFR-ON-TOP CRUISING LEVELS FOR YOUR DIRECTION OF FLIGHT ARE:

more than 3,000 feet above the surface to FL 180:

ODD/EVEN ALTITUDES/FLIGHT LEVELS PLUS FIVE HUNDRED FEET.

Section 4. Approaches

7-4-1. VISUAL APPROACH

A visual approach is an ATC authorization for an aircraft on an IFR flight plan to proceed visually to the airport of intended landing; it is not an instrument approach procedure. Also, there is no missed approach segment. An aircraft unable to complete a visual approach shall be handled as any go-around and appropriate separation must be provided.

REFERENCE-
FAAO 7110.65, Wake Turbulence Cautionary Advisories, Para 2-1-20.
FAAO 7110.65, Forwarding Approach Information by Nonapproach Control Facilities, Para 3-10-2.
FAAO 7110.65, Visual Separation, Para 7-2-1.
FAAO 7110.65, Approaches to Multiple Runways, Para 7-4-4.

7-4-2. VECTORS FOR VISUAL APPROACH

A vector for a visual approach may be initiated if the reported ceiling at the airport of intended landing is at least 500 feet above the MVA/MIA and the visibility is 3 miles or greater. At airports without weather reporting service there must be reasonable assurance (e.g. area weather reports, PIREP's, etc.) that descent and flight to the airport can be made visually, and the pilot must be informed that weather information is not available.

PHRASEOLOGY-
(Ident) FLY HEADING OR TURN RIGHT/LEFT HEADING (degrees) VECTOR FOR VISUAL APPROACH TO (airport name).

(If appropriate)

WEATHER NOT AVAILABLE.

NOTE-
At airports where weather information is not available, a pilot request for a visual approach indicates that descent and flight to the airport can be made visually and clear of clouds.

REFERENCE-
FAAO 7110.65, Vectors to Final Approach Course, Para 5-9-1.
FAAO 7110.65, Visual Separation, Para 7-2-1.
FAAO 7110.65, Clearance for Visual Approach, Para 7-4-3.
FAAO 7110.65, Approaches to Multiple Runways, Para 7-4-4.
FAAO 7110.65, Sequencing, Para 7-6-7.
FAAO 7110.65, Separation, Para 7-7-3.

7-4-3. CLEARANCE FOR VISUAL APPROACH

ARTCC's and approach controls may clear aircraft for visual approaches using the following procedures:

NOTE-
Towers may exercise this authority when authorized by a LOA with the facility that provides the IFR service, or by a facility directive at collocated facilities.

a. Controllers may initiate, or pilots may request, a visual approach even when an aircraft is being vectored for an instrument approach and the pilot subsequently reports:

1. The airport or the runway in sight at airports with operating control towers.

2. The airport in sight at airports without a control tower.

b. Resolve potential conflicts with all other aircraft, advise an overtaking aircraft of the distance to the preceding aircraft and speed difference, and ensure that weather conditions at the airport are VFR or that the pilot has been informed that weather is not available for the destination airport. Upon pilot request, advise the pilot of the frequency to receive weather information where AWOS/ASOS is available.

PHRASEOLOGY-
(Ident) (instructions) CLEARED VISUAL APPROACH RUNWAY (number);

or

(ident) (instructions) CLEARED VISUAL APPROACH TO (airport name)

(and if appropriate)

WEATHER NOT AVAILABLE OR VERIFY THAT YOU HAVE THE (airport) WEATHER.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

c. Clear an aircraft for a visual approach when:

1. The aircraft is number one in the approach sequence, or

2. The aircraft is to follow a preceding aircraft and the pilot reports the preceding aircraft in sight and is instructed to follow it, or

NOTE-
The pilot need not report the airport/runway in sight.

3. The pilot reports the airport or runway in sight but not the preceding aircraft. Radar separation must be maintained until visual separation is provided.

d. All aircraft following a heavy jet/B757 must be informed of the airplane manufacturer and model.

EXAMPLE-
"Cessna Three Four Juliet, following a Boeing 757, 12 o'clock, six miles."

e. Inform the tower of the aircraft's position prior to communications transfer at controlled airports. ARTS/STARS functions may be used provided a facility directive or LOA specifies control and communication transfer points.

PHRASEOLOGY-
(Ident) (instructions) CLEARED VISUAL APPROACH RUNWAY (number);

or

(ident) (instructions) CLEARED VISUAL APPROACH TO (airport name).

(And if appropriate)

WEATHER NOT AVAILABLE OR AWOS/ASOS WEATHER AVAILABLE ON FREQUENCY (freq) MHZ.

f. In addition to the requirements of para 7-4-2, Vectors for Visual Approach, and subparas a, b, c, d, and e, ensure that the location of the destination airport is provided when the pilot is asked to report the destination airport in sight.

g. In those instances where airports are located in close proximity, also provide the location of the airport that may cause the confusion.

EXAMPLE-
"Cessna Five Six November, Cleveland Burke Lakefront Airport is at 12 o'clock, 5 miles. Cleveland Hopkins Airport is at 1 o'clock 12 miles. Report Cleveland Hopkins in sight."

REFERENCE-
FAAO 7110.65, Approaches to Multiple Runways, Para 7-4-4.

7-4-4. APPROACHES TO MULTIPLE RUNWAYS

a. All aircraft must be informed that approaches are being conducted to parallel/intersecting/converging runways. This may be accomplished through use of the ATIS.

b. When conducting visual approaches to multiple runways ensure the following:

1. Do not permit the respective aircrafts' primary radar returns to merge unless visual separation is being applied.

2. When the aircraft flight paths intersect, ensure standard separation is maintained until visual separation is provided.

c. In addition to the requirements in para 7-2-1, Visual Separation, para 7-4-1, Visual Approach, para 7-4-2, Vectors for Visual Approach, and para 7-4-3, Clearance for Visual Approach, the following conditions apply to visual approaches being conducted simultaneously to parallel, intersecting, and converging runways, as appropriate:

1. Parallel runways separated by less than 2,500 feet. Unless standard separation is provided by ATC, an aircraft must report sighting a preceding aircraft making an approach (instrument or visual) to the adjacent parallel runway. When an aircraft reports another aircraft in sight on the adjacent final approach course and visual separation is applied, controllers must advise the succeeding aircraft to maintain visual separation. However, do not permit a heavy/B757 aircraft to overtake another aircraft. Do not permit a large aircraft to overtake a small aircraft.

2. Parallel runways separated by at least 2,500 feet, but less than 4,300 feet.

(a) Standard separation is provided until the aircraft are established on a heading which will intercept the extended centerline of the runway at an angle not greater than 30 degrees, and each aircraft has been issued and the pilot has acknowledged receipt of the visual approach clearance.

NOTE-
The intent of the 30 degree intercept angle is to reduce the potential for overshoots of the final, and preclude side-by-side operations with one or both aircraft in a "belly-up" configuration during the turn. Aircraft performance, speed, and the number of degrees of the turn to the final are factors to be considered by the controller when vectoring aircraft to parallel runways.

(b) Visual approaches may be conducted to one runway while visual or instrument approaches are conducted simultaneously to the other runway, provided the conditions of subpara (a) are met.

(c) Provided aircraft flight paths do not intersect, and when the provisions of subparas (a) and (b) are met, it is not necessary to apply any other type of separation with aircraft on the adjacent final approach course.

3. Parallel runways separated by 4,300 feet or more.

(a) When aircraft flight paths do not intersect, visual approaches may be conducted simultaneously, provided standard separation is maintained until one of the aircraft has been issued and the pilot has acknowledged receipt of the visual approach clearance.

(b) Visual approaches may be conducted to one runway while visual or instrument approaches are conducted simultaneously to the other runway, provided the conditions of subpara (a) are met.

(c) Provided the aircraft flight paths do not intersect, when the provisions of subparas (a) and (b) are met, it is not necessary to apply any other type of separation with aircraft on the adjacent final approach course.

4. Intersecting and converging runways. Visual approaches may be conducted simultaneously with visual or instrument approaches to another runway, provided:

(a) Standard separation is maintained until the aircraft conducting the visual approach has been issued and the pilot has acknowledged receipt of the visual approach clearance.

(b) When aircraft flight paths intersect, radar separation must be maintained until visual separation is provided.

NOTE-
Although simultaneous approaches may be conducted to intersecting runways, staggered approaches may be necessary to meet the airport separation requirements specified in para 3-10-4, Intersecting Runway Separation.

REFERENCE-
FAAO 7110.79, Charted Visual Flight Procedures.
FAAO 7110.65,Charted Visual Flight Procedures (CVFP). USA/USN Not Applicable, Para 7-4-5.
FAAO 7110.65, Separation, Para 7-7-3.

7-4-5. CHARTED VISUAL FLIGHT PROCEDURES (CVFP). USA/USN NOT APPLICABLE

Clear an aircraft for a CVFP only when the following conditions are met:

a. There is an operating control tower.

b. The published name of the CVFP and the landing runway are specified in the approach clearance, the reported ceiling at the airport of intended landing is at least 500 feet above the MVA/MIA, and the visibility is 3 miles or more, unless higher minimums are published for the particular CVFP.

c. When using parallel or intersecting/converging runways, the criteria specified in para 7-4-4, Approaches to Multiple Runways, are applied.

d. An aircraft not following another aircraft on the approach reports sighting a charted visual landmark, or reports sighting a preceding aircraft landing on the same runway and has been instructed to follow that aircraft.

PHRASEOLOGY-
(Ident) CLEARED (name of CVFP) APPROACH.

7-4-6. CONTACT APPROACH

Clear an aircraft for a contact approach only if the following conditions are met:

a. The pilot has requested it.

NOTE-
When executing a contact approach, the pilot is responsible for maintaining the required flight visibility, cloud clearance, and terrain/obstruction clearance. Unless otherwise restricted, the pilot may find it necessary to descend, climb, and/or fly a circuitous route to the airport to maintain cloud clearance and/or terrain/obstruction clearance. It is not in any way intended that controllers will initiate or suggest a contact approach to a pilot.

b. The reported ground visibility is at least 1 statute mile.

c. A standard or special instrument approach procedure has been published and is functioning for the airport of intended landing.

d. Approved separation is applied between aircraft so cleared and other IFR or SVFR aircraft. When applying vertical separation, do not assign a fixed altitude but clear the aircraft at or below an altitude which is at least 1,000 feet below any IFR traffic but not below the minimum safe altitude prescribed in 14 CFR Section 91.119.

NOTE-
14 CFR Section 91.119 specifies the minimum safe altitude to be flown:
(a) Anywhere.
(b) Over congested areas.
(c) Other than congested areas. To provide for an emergency landing in the event of power failure and without undue hazard to persons or property on the surface.
(d) Helicopters. May be operated at less than the minimums prescribed in paras (b) and (c) above if the operation is conducted without hazard to persons or property on the surface.

e. An alternative clearance is issued when weather conditions are such that a contact approach may be impracticable.

PHRASEOLOGY-
CLEARED CONTACT APPROACH,

And if required,
AT OR BELOW (altitude) (routing).

IF NOT POSSIBLE, (alternative procedures), AND ADVISE.

Section 5. Special VFR (SVFR)

7-5-1. AUTHORIZATION

a. SVFR operations in weather conditions less than basic VFR minima are authorized:

REFERENCE-
FAAO 7110.65, Operational Priority, Para 2-1-4.

1. At any location not prohibited by 14 CFR Part 91, Appendix D or when an exemption to 14 CFR Part 91 has been granted and an associated LOA established. 14 CFR Part 91 does not prohibit SVFR helicopter operations.

2. Only within the lateral boundaries of Class B, Class C, Class D, or Class E surface areas, below 10,000 feet MSL.

3. Only when requested by the pilot.

4. On the basis of weather conditions reported at the airport of intended landing/departure.

REFERENCE-
FAAO 7110.65, Climb to VFR, Para 7-5-6.
FAAO 7110.65, Ground Visibility Below One Mile, Para 7-5-7.

5. When weather conditions are not reported at the airport of intended landing/departure and the pilot advises that VFR cannot be maintained and requests SVFR.

PHRASEOLOGY-
CLEARED TO ENTER/OUT OF/THROUGH, (name) SURFACE AREA

and if required,

(direction) OF (name) AIRPORT (specified routing), and

MAINTAIN SPECIAL V-F-R CONDITIONS,

and if required,

AT OR BELOW (altitude below 10,000 feet MSL)

or as applicable under an exemption from 14 CFR Part 91,

CLEARED FOR (coded arrival or departure procedure) ARRIVAL/DEPARTURE, (additional instructions as required).

REFERENCE-
FAAO 7110.65, Airspace Classes, 2-4-22.

b. SVFR operations may be authorized for aircraft operating in or transiting a Class B, Class C, Class D, or Class E surface area when the primary airport is reporting VFR but the pilot advises that basic VFR cannot be maintained.

NOTE-
The basic requirements for issuance of a SVFR clearance in subpara a apply with the obvious exception that weather conditions at the controlling airport are not required to be less than basic VFR minima.

7-5-2. PRIORITY

a. SVFR flights may be approved only if arriving and departing IFR aircraft are not delayed.

EXAMPLE-
1. *A SVFR aircraft has been cleared to enter a Class B, Class C, Class D, or Class E surface area and subsequently an IFR aircraft is ready to depart or is in position to begin an approach. Less overall delay might accrue to the IFR aircraft if the SVFR aircraft is allowed to proceed to the airport and land, rather than leave, a Class B, Class C, Class D, or Class E surface area or be repositioned to provide IFR priority.*

2. *A SVFR aircraft is number one for takeoff and located in such a position that the number two aircraft, an IFR flight, cannot taxi past to gain access to the runway. Less overall delay might accrue to the IFR aircraft by releasing the SVFR departure rather than by having the aircraft taxi down the runway to a turnoff point so the IFR aircraft could be released first.*

NOTE-
The priority afforded IFR aircraft over SVFR aircraft is not intended to be so rigidly applied that inefficient use of airspace results. The controller has the prerogative of permitting completion of a SVFR operation already in progress when an IFR aircraft becomes a factor if better overall efficiency will result.

b. Inform an aircraft of the anticipated delay when a SVFR clearance cannot be granted because of IFR traffic. Do not issue an EFC or expected departure time.

PHRASEOLOGY-
EXPECT (number) MINUTES DELAY, (additional instructions as necessary).

REFERENCE-
FAAO 7110.65, Operational Priority, Para 2-1-4.
FAAO 7110.65, Application, Para 5-6-1.

7-5-3. SEPARATION

a. Apply approved separation between:

1. SVFR aircraft.

2. SVFR aircraft and IFR aircraft.

NOTE-
Approved separation between SVFR fixed-wing aircraft, and between SVFR fixed-wing aircraft and IFR fixed-wing aircraft, is prescribed in Chapter 6 and Chapter 7, para 7-5-4, Altitude Assignment. Radar vectors are authorized as prescribed in para 5-6-1, Application, subpara f.

b. Alternate SVFR helicopter separation minima may be established when warranted by the volume and/or complexity of local helicopter operations. Alternate SVFR helicopter separation minima shall be established with an LOA with the helicopter operator which shall specify, as a minimum, that SVFR helicopters are to maintain visual reference to the surface and adhere to the following aircraft separation minima:

1. Between a SVFR helicopter and an arriving or departing IFR aircraft:

(a) $^1/_2$ mile. If the IFR aircraft is less than 1 mile from the landing airport.

(b) 1 mile. If the IFR aircraft is 1 mile or more from the airport.

2. 1 mile between SVFR helicopters. This separation may be reduced to 200 feet if:

(a) Both helicopters are departing simultaneously on courses that diverge by at least 30 degrees and:

(1) The tower can determine this separation by reference to surface markings; or

(2) One of the departing helicopters is instructed to remain at least 200 feet from the other.

NOTE-
Radar vectors are authorized as prescribed in para 5-6-1, Application.

REFERENCE-
FAAO 7110.65, Operational Priority, Para 2-1-4.

7-5-4. ALTITUDE ASSIGNMENT

Do not assign a fixed altitude when applying vertical separation, but clear the SVFR aircraft at or below an altitude which is at least 500 feet below any conflicting IFR traffic but not below the MSA prescribed in 14 CFR Section 91.119.

PHRASEOLOGY-
MAINTAIN SPECIAL V-F-R CONDITIONS AT OR BELOW (altitude).

NOTE-
1. *SVFR aircraft are not assigned fixed altitudes to maintain because of the clearance from clouds requirement.*

2. *The MSA's are:*
(a) Over congested areas, an altitude at least 1,000 feet above the highest obstacle, and
(b) Over other than congested areas, an altitude at least 500 feet above the surface.
(c) Helicopters may be operated at less than the minimum altitudes prescribed in (a) and (b) above.

REFERENCE-
FAAO 7110.65, Operational Priority, Para 2-1-4.
FAAO 7110.65, Application, Para 5-6-1.
14 CFR Section 91.119, Minimum Safe Altitudes: General.

7-5-5. LOCAL OPERATIONS

a. Authorize local SVFR operations for a specified period (series of landings and takeoffs, etc.) upon request if the aircraft can be recalled when traffic or weather conditions require. Where warranted, LOA's may be consummated.

PHRASEOLOGY-
LOCAL SPECIAL V-F-R OPERATIONS IN THE IMMEDIATE VICINITY OF (name) AIRPORT ARE AUTHORIZED UNTIL (time). MAINTAIN SPECIAL V-F-R CONDITIONS.

REFERENCE-
FAAO 7210.3, Appropriate Subjects, Para 4-3-2.

b. Control facilities may also authorize an FSS to transmit SVFR clearances so that only one aircraft at a time operates in the Class B, Class C, Class D, or Class E surface areas unless pilots agree that they will maintain visual separation with other aircraft operating in the Class B, Class C, Class D, or Class E surface areas. Such authorization concerning visual separation by pilots shall be contained in a LOA between the control facility and the FSS.

REFERENCE-
FAAO 7210.3, Developing LOA, Para 4-3-3.
FAAO 7110.65, Operational Priority, Para 2-1-4.

7-5-6. CLIMB TO VFR

Authorize an aircraft to climb to VFR upon request if the only weather limitation is restricted visibility.

PHRASEOLOGY-
CLIMB TO V-F-R WITHIN (name) SURFACE AREA/WITHIN (a specified distance) MILES FROM (airport name) AIRPORT, MAINTAIN SPECIAL V-F-R CONDITIONS UNTIL REACHING V-F-R.

REFERENCE-
FAAO 7110.65, Operational Priority, Para 2-1-4.
FAAO 7110.65, Airspace Classes, Para 2-4-22.
FAAO 7110.65, Authorization, Para 7-5-1.

7-5-7. GROUND VISIBILITY BELOW ONE MILE

14 CFR Part 91 does not prohibit helicopter SVFR flight when the visibility is less than 1 mile. Treat requests for SVFR fixed wing operations as follows when the ground visibility is officially reported at an airport as less than 1 mile:

a. Inform departing aircraft that ground visibility is less than 1 mile and that a clearance cannot be issued.

b. Inform arriving aircraft, operating outside of a Class B, Class C, Class D, or Class E surface area, that ground visibility is less than 1 mile and that, unless an emergency exists, a clearance cannot be issued.

c. Inform arriving aircraft, operating VFR/SVFR within a Class B, Class C, Class D, or Class E surface area, that ground visibility is less than 1 mile and request the pilot to advise intentions.

PHRASEOLOGY-
(Name of airport) VISIBILITY LESS THAN ONE MILE. ADVISE INTENTIONS.

NOTE-
Clear an aircraft to land at an airport with an operating control tower, traffic permitting, if the pilot reports the airport in sight. The pilot is responsible to continue to the airport or exit the surface area. 14 CFR Section 91.157 prohibits VFR aircraft (other than helicopters) from landing at any airport within a surface area when ground visibility is less than 1 mile. A pilot could inadvertently encounter conditions that are below SVFR minimums after entering a surface area due to rapidly changing weather. The pilot is best suited to determine the action to be taken since pilots operating under SVFR between sunrise and sunset are not required to be instrument rated, and the possibility exists that flight visibility may not be the same as ground visibility. 14 CFR Section 91.3 authorizes a pilot encountering an inflight emergency requiring immediate action to deviate from any rule of 14 CFR Part 91 to the extent required to meet that emergency. Flight into adverse weather conditions may require the pilot to execute the emergency authority granted in 14 CFR Section 91.3 and continue inbound to land.

d. Authorize scheduled air carrier aircraft in the U.S. to conduct operations if ground visibility is not less than $^1/_2$ statute mile.

NOTE-
14 CFR Part 121 permits landing or takeoff by domestic scheduled air carriers where a local surface restriction to visibility is not less than 1/2 statute mile, provided all turns after takeoff or before landing and all flights beyond 1 statute mile from the airport boundary can be accomplished above or outside the area so restricted. The pilot is solely responsible for determining if the nature of the visibility restriction will permit compliance with the provisions of 14 CFR Part 121.

e. Clear an aircraft to fly through the Class B, Class C, Class D, or Class E surface area if the aircraft reports flight visibility is at least 1 statute mile.

REFERENCE-
FAAO 7110.65, Operational Priority, Para 2-1-4.
FAAO 7110.65, Authorization, Para 7-5-1.

7-5-8. FLIGHT VISIBILITY BELOW ONE MILE

Treat requests for SVFR fixed-wing operations as follows when weather conditions are not reported at an airport and the pilot advises the flight visibility is less than 1 mile:

NOTE-
14 CFR Part 91 prescribes the visibility for basic VFR and SVFR operations as the official reported ground visibility at airports where provided and landing or takeoff "flight visibility" where there is no official reported ground visibility.

a. Inform departing aircraft that a clearance cannot be issued.

b. Inform arriving aircraft operating outside of a Class B, Class C, Class D or Class E surface area that a clearance cannot be issued unless an emergency exists.

c. Request the intentions of an arriving aircraft operating within a Class B, Class C, Class D, or Class E surface area.

NOTE-
Clear an aircraft to land at an airport with an operating control tower, traffic permitting, if the pilot reports the airport in sight. The pilot is responsible to continue to the airport or exit the surface area. 14 CFR Section 91.157 prohibits VFR aircraft (other than helicopters) from landing at any airport within a surface area when flight visibility is less than 1 mile. A pilot could inadvertently encounter conditions that are below SVFR minimums after entering a surface area due to rapidly changing weather. The pilot is best suited to determine the action to be taken since pilots operating under SVFR between sunrise and sunset are not required to be instrument rated, and the possibility exists that flight visibility may not be the same as ground visibility. 14 CFR Section 91.3 authorizes a pilot encountering an inflight emergency requiring immediate action to deviate from any rule of 14 CFR Part 91 to the extent required to meet that emergency. Flight into adverse weather conditions may require the pilot to execute the emergency authority granted in 14 CFR Section 91.3 and continue inbound to land.

REFERENCE-
FAAO 7110.65, Operational Priority, Para 2-1-4.

Section 6. Basic Radar Service to VFR Aircraft- Terminal

7-6-1. APPLICATION

a. Basic radar services for VFR aircraft shall include:

1. Safety alerts.

2. Traffic advisories.

3. Limited radar vectoring when requested by the pilot.

4. Sequencing at locations where procedures have been established for this purpose and/or when covered by a LOA.

b. Apply the procedures contained in para 7-1-3, Approach Control Service for VFR Arriving Aircraft, when arriving VFR aircraft are handled by approach control and provide vectoring service in accordance with Chapter 5. Radar, Section 7. Speed Adjustment, in addition to the radar services prescribed in para 5-6-1, Application, and para 5-6-2, Methods.

REFERENCE-
FAAO 7110.65, Surface Areas, Para 2-1-16.
FAAO 7110.65, Application, Para 7-6-1.
FAAO 7210.3, Chapter 11, Section 1. Terminal VFR Radar Services.
AIM, Terminal Radar Services for VFR Aircraft, Para 4-1-17.

7-6-2. SERVICE AVAILABILITY

a. Inform aircraft on initial contact whenever this service cannot be provided because of radar outage and apply para 7-1-3, Approach Control Service for VFR Arriving Aircraft.

b. Provide the service, to the extent possible using an available frequency, if an aircraft desires the service but cannot communicate on the appropriate frequencies. Aircraft which do not desire radar service may be fitted into the landing sequence by the tower. Coordination of these aircraft shall be accomplished with the approach control unless a facility directive/LOA prescribes otherwise. Nonparticipating aircraft shall, to the extent possible, be given the same landing sequence they would have received had they been sequenced by radar vectors.

c. Radar sequencing to the primary airport, when local procedures have been developed, shall be provided unless the pilot states that the service is not requested. Arriving aircraft are assumed to want radar service unless the pilot states "Negative radar service," or makes a similar comment.

7-6-3. INITIAL CONTACT

An aircraft sighted by the local controller at the time of first radio contact may be positioned in the landing sequence after coordination with approach control.

7-6-4. IDENTIFICATION

Identify the aircraft before taking action to position it in the approach sequence.

7-6-5. HOLDING

Hold VFR aircraft over the initial reporting fix or a fix near the airport when holding is required to establish an approach sequence.

REFERENCE-
FAAO 7110.65, Visual Holding of VFR Aircraft, Para 7-1-4.

7-6-6. APPROACH SEQUENCE

Do not assign landing sequence numbers, when establishing aircraft in the approach sequence, unless this responsibility has been delegated in a LOA or facility directive.

NOTE-
The landing sequence is ordinarily established by the tower.

7-6-7. SEQUENCING

a. Establish radar contact before instructing a VFR aircraft to enter the traffic pattern at a specified point or vectoring the aircraft to a position in the approach sequence. Inform the pilot of the aircraft to follow when the integrity of the approach sequence is dependent on following a preceding aircraft. Ensure visual contact is established with the aircraft to follow and provide instruction to follow that aircraft.

PHRASEOLOGY-
FOLLOW (description) (position, if necessary).

b. Direct a VFR aircraft to a point near the airport to hold when a position is not available in the approach sequence for the runway in use. The aircraft may be vectored to another runway after coordination with the tower.

c. Apply the following procedures to a VFR aircraft being radar sequenced:

1. The provisions of para 5-5-4, Minima, subparas d and e.

2. When parallel runways are less than 2,500 feet apart, do not permit a heavy jet/B757 to overtake any aircraft nor a large aircraft to overtake a small aircraft established on final within the facility's area of responsibility.

7-6-8. CONTROL TRANSFER

a. Inform the tower of the aircraft's position and then instruct the pilot to contact the tower.

b. The aircraft may be instructed to contact the tower prior to the tower being advised of the aircraft's position provided:

1. The tower advises the aircraft is in sight, and

2. Space is available in the landing sequence.

c. Instruct the pilot to contact the tower at the appropriate point when the approach control ARTS/STARS track data is being displayed on the tower's BRITE/DBRITE/TDW display, the aircraft is tagged by ARTS/STARS, and a facility directive specifies change of communications and control jurisdiction points.

NOTE-
The point at which an aircraft is instructed to contact the tower is determined by prior coordination between the tower and approach control and will vary, depending on the runway in use, weather, etc. The transfer of communications ordinarily occurs at least 5 miles from the runway. The point for the transfer of communications should be a sufficient distance from the airport to permit the tower to properly sequence the aircraft, but not at a distance that could derogate the provision of radar traffic information service.

7-6-9. ABANDONED APPROACH

Instruct the aircraft to change to approach control for sequencing when an aircraft, under tower control, abandons the approach and coordination with approach control reveals no immediate space in the approach sequence.

7-6-10. VFR DEPARTURE INFORMATION

Inform departing VFR aircraft who request radar traffic advisories when to contact departure control and the frequency to use. Provide traffic advisories in accordance with para 2-1-21, Traffic Advisories, after the departure is radar identified.

NOTE-
Departing aircraft desiring traffic information are expected to request the service and to state their proposed direction of flight upon initial contact with ground control.

7-6-11. TERMINATION OF SERVICE

Basic radar services should be provided to the extent possible, workload permitting. Terminate radar service to aircraft landing at airports other than those where sequencing service is provided at a sufficient distance from the airport to permit the pilot to change to the appropriate frequency for traffic and airport information.

PHRASEOLOGY-
RADAR SERVICE TERMINATED, SQUAWK ONE TWO ZERO ZERO,

or

SQUAWK VFR,

then

CHANGE TO ADVISORY FREQUENCY APPROVED,

or

CONTACT (frequency identification),

or

FREQUENCY CHANGE APPROVED.

7-6-12. SERVICE PROVIDED WHEN TOWER IS INOPERATIVE

a. Provide the following services during hours when the tower is not in operation:

1. Wind direction and velocity.

NOTE-
Issue information provided from the FSS or WSO. Otherwise, inform the pilot that wind information is not available.

2. Traffic information.

3. Inform aircraft when radar service is terminated.

REFERENCE-
FAAO 7110.65, Radar Service Termination, Para 5-1-13.

b. Do not assign landing sequence.

Section 7. Terminal Radar Service Area (TRSA)- Terminal

7-7-1. APPLICATION

Apply TRSA procedures within the designated TRSA in addition to the basic services described in Chapter 7, Visual, Section 6, Basic Radar Service to VFR Aircraft- Terminal.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-7-2. ISSUANCE OF EFC

Inform the pilot when to expect further clearance when VFR aircraft are held either inside or outside the TRSA.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-7-3. SEPARATION

Separate VFR aircraft from VFR/IFR aircraft by any one of the following:

a. Visual separation, as specified in para 7-2-1, Visual Separation, para 7-4-2, Vectors for Visual Approach, and para 7-6-7, Sequencing.

NOTE-
Issue wake turbulence cautionary advisories in accordance with para 2-1-20, Wake Turbulence Cautionary Advisories.

b. 500 feet vertical separation.

c. Target resolution when using broadband radar systems. The application of target resolutions at locations not using broadband radar will be individually approved by the Program Director for Air Traffic Planning and Procedures, ATP-1.

NOTE-
Apply the provisions of para 5-5-4, Minima, subparas d and e when wake turbulence separation is required.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-7-4. HELICOPTER TRAFFIC

Helicopters need not be separated from other helicopters. Traffic information shall be exchanged, as necessary.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-7-5. ALTITUDE ASSIGNMENTS

a. Altitude information contained in a clearance, instruction, or advisory to VFR aircraft shall meet MVA, MSA, or minimum IFR altitude criteria.

REFERENCE-
FAAO 7110.65, Flight Direction, Para 4-5-2.
FAAO 7110.65, Exceptions, Para 4-5-3.
FAAO 7110.65, Minimum En Route Altitudes, Para 4-5-6.

b. If required, issue altitude assignments, consistent with the provisions of 14 CFR Section 91.119.

NOTE-
The MSA's are:
(1) Over congested areas, an altitude at least 1,000 feet above the highest obstacle; and

(2) Over other than congested areas, an altitude at least 500 feet above the surface.

c. When necessary to assign an altitude for separation purposes to VFR aircraft contrary to 14 CFR Section 91.159, advise the aircraft to resume altitudes appropriate for the direction of flight when the altitude assignment is no longer needed for separation or when leaving the TRSA.

PHRASEOLOGY-
RESUME APPROPRIATE VFR ALTITUDES.

REFERENCE-
FAAO 7110.65, Practice Approaches, Para 4-8-11.
FAAO 7110.65, Application, Para 5-6-1.
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-7-6. APPROACH INTERVAL

The tower shall specify the approach interval.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-7-7. TRSA DEPARTURE INFORMATION

a. At controlled airports within the TRSA, inform a departing aircraft proposing to operate within the TRSA when to contact departure control and the frequency to use. If the aircraft is properly equipped, ground control or clearance delivery shall issue the appropriate beacon code.

NOTE-
Departing aircraft are assumed to want TRSA service unless the pilot states, "negative TRSA service," or makes a similar comment. Pilots are expected to inform the controller of intended destination and/or route of flight and altitude.

b. Provide separation until the aircraft leaves the TRSA.

c. Inform VFR participating aircraft when leaving the TRSA.

PHRASEOLOGY-
LEAVING THE (name) TRSA,

and as appropriate,

RESUME OWN NAVIGATION, REMAIN THIS FREQUENCY FOR TRAFFIC ADVISORIES, RADAR SERVICE TERMINATED, SQUAWK ONE TWO ZERO ZERO.

d. Aircraft departing satellite controlled airports that will penetrate the TRSA should be provided the same service as those aircraft departing the primary airport. Procedures for handling this situation shall be covered in a letter of agreement or facility directives, as appropriate.

e. Procedures for handling aircraft departing uncontrolled satellite airports must be advertised in a facility bulletin and service provided accordingly.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

Section 8. Class C Service- Terminal

7-8-1. APPLICATION

Apply Class C service procedures within the designated Class C airspace and the associated outer area. Class C services are designed to keep ATC informed of all aircraft within Class C airspace, not to exclude operations. Two-way radio communications and operational transponder are normally required for operations within Class C airspace, but operations without radio communications or transponder can be conducted by LOA, facility directive, or special arrangement with Class C airspace controlling facility.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.
14 CFR Section 91.215, ATC Transponder and Altitude Reporting Equipment and Use.

7-8-2. CLASS C SERVICES

a. Class C services include the following:

1. Sequencing of all aircraft to the primary airport.

2. Standard IFR services to IFR aircraft.

3. Separation, traffic advisories, and safety alerts between IFR and VFR aircraft.

4. Mandatory traffic advisories and safety alerts between VFR aircraft.

b. Provide Class C services to all aircraft operating within Class C airspace.

c. Provide Class C services to all participating aircraft in the outer area.

d. Aircraft should not normally be held. However, if holding is necessary, inform the pilot of the expected length of delay.

e. When a radar outage occurs, advise aircraft that Class C services are not available and, if appropriate, when to contact the tower.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-8-3. SEPARATION

Separate VFR aircraft from IFR aircraft by any one of the following:

a. Visual separation as specified in para 7-2-1, Visual Separation, para 7-4-2, Vectors for Visual Approach, and para 7-6-7, Sequencing.

NOTE-
Issue wake turbulence cautionary advisories in accordance with para 2-1-20, Wake Turbulence Cautionary Advisories.

b. 500 feet vertical separation;

c. Target resolution when using broadband radar systems. The application of target resolution at locations not using broadband radar will be individually approved by the Program Director for Air Traffic Planning and Procedures, ATP-1.

NOTE-
Apply the provisions of para 5-5-4, Minima, when wake turbulence separation is required.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-8-4. ESTABLISHING TWO-WAY COMMUNICATIONS

Class C service requires pilots to establish two-way radio communications before entering Class C airspace. If the controller responds to a radio call with, "(a/c call sign) standby," radio communications have been established and the pilot can enter Class C airspace. If workload or traffic conditions prevent immediate provision of Class C services, inform the pilot to remain outside Class C airspace until conditions permit the services to be provided.

PHRASEOLOGY-
(A/c call sign) REMAIN OUTSIDE CHARLIE AIRSPACE AND STANDBY.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-8-5. ALTITUDE ASSIGNMENTS

a. When necessary to assign altitudes to VFR aircraft, assign altitudes that meet the MVA, MSA, or minimum IFR altitude criteria.

b. Aircraft assigned altitudes which are contrary to 14 CFR Section 91.159 shall be advised to resume altitudes appropriate for the direction of flight when the altitude is no longer needed for separation, when leaving the outer area, or when terminating Class C service.

PHRASEOLOGY-
RESUME APPROPRIATE VFR ALTITUDES.

REFERENCE-
FAAO 7110.65, Visual Separation, Para 7-2-1.

7-8-6. EXCEPTIONS

a. VFR helicopters need not be separated from IFR helicopters. Traffic information and safety alerts shall be issued as appropriate.

b. Hot air balloons need not be separated from IFR aircraft. Traffic information and safety alerts shall be issued as appropriate.

7-8-7. ADJACENT AIRPORT OPERATIONS

a. Aircraft that will penetrate Class C airspace after departing controlled airports within or adjacent to Class C airspace shall be provided the same services as those aircraft departing the primary airport. Procedures for handling this situation shall be covered in a LOA or a facility directive, as appropriate.

b. Aircraft departing uncontrolled airports within Class C airspace shall be handled using procedures advertised in a Letter to Airmen.

7-8-8. TERMINATION OF SERVICE

Unless aircraft are landing at secondary airports or have requested termination of service while in the outer area, provide services until the aircraft departs the associated outer area. Terminate Class C service to aircraft landing at other than the primary airport at a sufficient distance from the airport to allow the pilot to change to the appropriate frequency for traffic and airport information.

PHRASEOLOGY-
CHANGE TO ADVISORY FREQUENCY APPROVED,

or

CONTACT (facility identification).

Section 9. Class B Service Area- Terminal

7-9-1. APPLICATION

Apply Class B services and procedures within the designated Class B airspace.

a. No person may operate an aircraft within Class B airspace unless:

1. The aircraft has an operable two-way radio capable of communications with ATC on appropriate frequencies for that Class B airspace.

2. The aircraft is equipped with the applicable operating transponder and automatic altitude reporting equipment specified in para (a) of 14 CFR Section 91.215, except as provided in para (d) of that section.

7-9-2. VFR AIRCRAFT IN CLASS B AIRSPACE

a. VFR aircraft must obtain an ATC clearance to operate in Class B airspace.

REFERENCE-
FAAO 7110.65, Operational Requests, Para 2-1-18.
FAAO 7110.65, Airspace Classes, Para 2-4-22.

PHRASEOLOGY-
CLEARED THROUGH/TO ENTER/OUT OF BRAVO AIRSPACE,

and as appropriate,

VIA (route). MAINTAIN (altitude) WHILE IN BRAVO AIRSPACE.

or

CLEARED AS REQUESTED.

(Additional instructions, as necessary.)

REMAIN OUTSIDE BRAVO AIRSPACE. (When necessary, reason and/or additional instructions.)

NOTE-
1. *Assignment of radar headings, routes, or altitudes is based on the provision that a pilot operating in accordance with VFR is expected to advise ATC if compliance will cause violation of any part of the CFR.*

2. *Separation and sequencing for VFR aircraft is dependent upon radar. Efforts should be made to segregate VFR traffic from IFR traffic flows when a radar outage occurs.*

b. Approve/deny requests from VFR aircraft to operate in Class B airspace based on workload, operational limitations and traffic conditions.

c. Inform the pilot when to expect further clearance when VFR aircraft are held either inside or outside Class B airspace.

d. Inform VFR aircraft when leaving Class B airspace.

PHRASEOLOGY-
LEAVING (name) BRAVO AIRSPACE,

and as appropriate,

RESUME OWN NAVIGATION, REMAIN THIS FREQUENCY FOR TRAFFIC ADVISORIES, RADAR SERVICE TERMINATED, SQUAWK ONE TWO ZERO ZERO.

7-9-3. METHODS

a. To the extent practical, clear large turbine engine-powered airplanes to/from the primary airport using altitudes and routes that avoid VFR corridors and airspace below the Class B airspace floor where VFR aircraft are operating.

NOTE-
Pilots operating in accordance with VFR are expected to advise ATC if compliance with assigned altitudes, headings, or routes will cause violation of any part of the CFR.

b. Vector aircraft to remain in Class B airspace after entry. Inform the aircraft when leaving and reentering Class B airspace if it becomes necessary to extend the flight path outside Class B airspace for spacing.

NOTE-
14 CFR Section 91.131 states that "Unless otherwise authorized by ATC, each person operating a large turbine engine-powered airplane to or from a primary airport for which a Class B airspace area is designated must operate at or above the designated floors of the Class B airspace area while within the lateral limits of that area." Such authorization should be the exception rather than the rule.

REFERENCE-
FAAO 7110.65, Deviation Advisories, Para 5-1-10.

c. Aircraft departing controlled airports within Class B airspace will be provided the same services as those aircraft departing the primary airport.

REFERENCE-
FAAO 7110.65, Operational Requests, Para 2-1-18.

7-9-4. SEPARATION

a. Standard IFR services to IFR aircraft.

b. VFR aircraft shall be separated from VFR/IFR aircraft that weigh more than 19,000 pounds and turbojets by no less than:

NOTE-
Aircraft weighing 19,000 pounds or less include all of the aircraft in SRS categories I and II plus SC7, G73, E110, DO82, STAR, S601, BE30, B350, SW3, B190, and C212.

1. 1 $^1/_2$ miles separation, or

2. 500 feet vertical separation, or

NOTE-
Apply the provisions of para 5-5-3, Minima, when wake turbulence separation is required.

3. Visual separation, as specified in para 7-2-1, Visual Separation, para 7-4-2, Vectors for Visual Approach, and para 7-6-7, Sequencing.

NOTE-
Issue wake turbulence cautionary advisories in accordance with para 2-1-20, Wake Turbulence Cautionary Advisories.

c. VFR aircraft shall be separated from all VFR/IFR aircraft which weigh 19,000 pounds or less by a minimum of:

1. Target resolution, or

2. 500 feet vertical separation, or

NOTE-
Apply the provisions of para 5-5-3, Minima, when wake turbulence separation is required.

3. Visual separation, as specified in para 7-2-1, Visual Separation, para 7-4-2, Vectors for Visual Approach, and para 7-6-7, Sequencing.

NOTE-
Issue wake turbulence cautionary advisories in accordance with para 2-1-20, Wake Turbulence Cautionary Advisories.

REFERENCE-
P/CG Term- Lateral Separation.
P/CG Term- Radar Separation.
P/CG Term- Target Resolution.
P/CG Term- Visual Separation.

7-9-5. TRAFFIC ADVISORIES

a. Provide mandatory traffic advisories and safety alerts, between all aircraft.

b. Apply merging target procedures in accordance with para 5-1-8, Merging Target Procedures.

7-9-6. HELICOPTER TRAFFIC

VFR helicopters need not be separated from VFR or IFR helicopters. Traffic advisories and safety alerts shall be issued as appropriate.

7-9-7. ALTITUDE ASSIGNMENTS

a. Altitude information contained in a clearance, instruction, or advisory to VFR aircraft shall meet MVA, MSA, or minimum IFR altitude criteria.

b. Issue altitude assignments, if required, consistent with the provisions of 14 CFR Section 91.119.

NOTE-
The MSA's are:
1. Over congested areas, an altitude at least 1,000 feet above the highest obstacle,
2. Over other than congested areas, an altitude at least 500 feet above the surface.

REFERENCE-
FAAO 7110.65, Flight Direction, Para 4-5-2.
FAAO 7110.65, Exceptions, Para 4-5-3.
FAAO 7110.65, Minimum En Route Altitudes, Para 4-5-6.

c. Aircraft assigned altitudes which are contrary to 14 CFR Section 91.159 shall be advised to resume altitudes appropriate for the direction of flight when the altitude assignment is no longer required or when leaving Class B airspace.

PHRASEOLOGY-
RESUME APPROPRIATE VFR ALTITUDES.

7-9-8. APPROACH INTERVAL

The tower shall specify the approach interval.